STATEMENT OF FREDERICK A. MEISTER, ACTING ASSOCIATE ADMINISTRATOR FOR PLANS, FEDERAL AVIATION ADMINISTRATION, DEPARTMENT OF TRANSPORTATION, BEFORE THE SUBCOMMITTEE ON AIR AND WATER POLLUTION OF THE SENATE COMMITTEE ON PUBLIC WORKS REGARDING THE IMPLEMENTATION OF SECTION 7 OF THE NOISE CONTROL ACT OF 1972, ON MARCH 22, 1974.

Mr. Chairman and Committee Members:

The Administrator of the FAA has asked me to express his regrets that he could not be here himself today because of prior commitments.

I am Frederick A. Meister, Acting Associate Administrator for Plans of the FAA. With me are Mr. Charles R. Foster, Director of the Office of Noise Abatement in the Department of Transportation, Mr. Richard P. Skully, Director of the FAA's Office of Environmental Quality, and Oscar Shienbrood of the Office of Chief Counsel.

We are pleased to be here today to discuss the implementation of Section 7 of the Noise Control Act of 1972. I welcome this opportunity to appear before you to report on some of the results of our programs which have come to fruition since the Act's passage.

First I would like to state that the Noise Control Act of 1972 has proven to be very constructive legislation. The Act has been a successful attention getter and has catalyzed the attitude and actions of the

public, industry and government in undertaking active support of noise control efforts. The Act also served to focus attention on the fact that the problem of noise comes from a variety of sources and affects our society in many ways. Thus, we believe the Act has served to bring the role of aircraft noise into proper focus with respect to the total noise problem our society is faced with. Assessment of this total noise picture will lead to an increased appreciation for the complexities of noise control in general and will lead to a deeper understanding of our past efforts to control aircraft noise.

In addition to these benefits, the Noise Control Act has brought into perspective all factors which must be properly balanced when seeking environmental improvement. Air transportation is a prime and vital element of our Nation's transportation system. In view of its prominence as a major national asset, its economic viability through reasonable growth must be assured; hence, environmental safeguards must be accomplished within the economic constraints which insure rather than deter growth.

Additionally, the Noise Control Act has brought into focus the complexity of the administrative process of implementing governmental actions. The administrative rulemaking process necessarily prolongs the time between the conception of a regulatory scheme and its final implementation, but in doing so the rights of all segments of our society to be heard are protected. While these procedures have lessened the immediacy of impact of the Noise Control Act of 1972, they are a necessary and important part of our democratic process and in my opinion will serve to increase public confidence and appreciation for this "checks and balances" procedure.

Having reviewed some of the favorable aspects of the Noise Control Act of 1972, I would now like to report on a subject which this Subcommittee has expressed specific interest in, the EPA/FAA working relationship under the Act.

In the first seventeen months under the Act there has been extensive interchange between the two agencies. The FAA/DOT has made staff level regulatory project reports and all of the technical research and

development reports on aircraft noise suppression available to the EPA. In exchange we have received many reports from the EPA. We have had representation at most of the EPA task force meetings and have actively participated in the public working group meeting prior to the submittal of the July 1973 EPA report to the Senate Public Works Committee of the Congress. Frequent contact has been made at the staff level to exchange technical views on the development of project reports which serve as the base for the pending regulatory recommendations.

Further related to the implementation of the EPA/FAA consultative process defined by the Noise Control Act, the EPA has commented on rulemaking proposed independently by the FAA. We have generally found this consultation to be constructive, objective and timely. Our prior experience in the setting of aircraft emission standards is a case in point. FAA's initiatives and cooperation with EPA were major factors in arriving at reasonable standards. Another example of joint EPA/FAA effort is a program recently conducted at Atlanta Airport to determine the feasibility of aircraft ground operational procedures to

reduce emissions. In summation, we welcome EPA's participation in noise rulemaking, and believe that the intent of the consultative provisions of the Act are being accomplished.

The first formal EPA implementation of Section 7 was the July 1973 report to the Senate Public Works Committee. That report in broad terms points to problem areas related to aircraft noise. It was not intended to serve as a viable base for specific FAA action, but rather to highlight these problem areas.

Subsequently, on February 19, 1974, EPA published in the Federal Register the titles and a synopsis of ten regulatory proposals for public comment which EPA is considering for ultimate submittal to FAA.

I would now like to turn to what FAA has done to date, and has in the planning stage, for implementing our statutory duties under the Federal Aviation Act of 1958, as amended, with respect to noise control.

The FAA's plans, programs, and accomplishments have followed a consistent and orderly process. In November 1969 we published Federal Aviation Regulation Part 36, which put a lid on the escalation of aircraft

noise. Examples of significantly quieted aircraft certified under this regulation are the DC-10, L-1011, B-747, F-28, Cessna Citation and the Dassault Falcon 10. There are currently in excess of 300 aircraft which have been certificated to FAR 36 levels operating today. The FAA has accomplished over 100 certification actions under FAR 36 which have insured that modifications to existing aircraft were accomplished without increasing the aircraft's noise levels.

Having put a lid on the escalation of aircraft noise, the FAA next addressed the issue of noise levels of aircraft coming off production lines under certificates issued before FAR 36 became effective. A Notice of Proposed Rulemaking was issued dealing with this subject in July 1972, and a final rule was published in October 1973. That rule requires compliance with the FAR 36 noise levels as a condition for the issuance of a standard airworthiness certificate. As a result all newly produced large turbojet aircraft have had to meet FAR 36 noise levels.

We are currently addressing the quieting of in service commercial aircraft through the development of fleet noise requirements. The

feasibility of quieting turbojet aircraft was demonstrated by the FAA for the Congress and the public by flyover noise comparisons at Dulles Airport in May 1973. That project, conducted by the FAA and the Boeing Company, demonstrated takeoff noise reductions of 11 EPNdB and approach noise reductions of 15 EPNdB were achievable using quiet engine nacelles on a B-707. In connection with this area of effort an Advance Notice of Proposed Rule Making was published in January 1973. Mr. Chairman, I am pleased to announce today that a Notice of Proposed Rule Making will be published next week which proposes a means of assuring that all currently available acoustic technology is applied to in service commercial aircraft. The proposal, if adopted, will be costly ($600 - $800 million), but the benefits of the program will provide noise relief parallel to that of the Dulles Airport flyover noise comparisons to literally hundreds of thousands of persons located near our busier airports.

Dealing further with aircraft source noise the FAA issued an NPRM, 73-26, in October 1973 which proposed noise standards for propeller driven aircraft. This proposal would accomplish objectives essentially

parallel to those of FAR 36 for turbojet aircraft. First a lid will be put on this type of noise. Next all newly produced propeller driven aircraft will be required to meet that noise standard. An Environmental Impact Statement has been prepared for the final rule, and we are hopeful that the rule will be in effect before the end of 1974.

With regard to supersonic civil aircraft noise, rulemaking action dated April 1973 prohibits all supersonic flights over the U. S. by civil aircraft. The FAA has been monitoring the development of civil supersonic aircraft by the British and French. As you know the Concorde is not yet being operated by air carriers; it is still under development. Recent press reports have indicated further design changes are being considered. Consequently, at this time it would be premature to promulgate standards for this aircraft pursuant to Section 7 (b) of the Noise Control Act which amends Section 611 (d) of the Federal Aviation Act. Under Section 611 (d) the FAA is required to consider factors of air safety, economic reasonableness, practicable technology and the appropriateness of any such standard in relation to the type of aircraft.

We are also looking at future aircraft types and future noise level requirements. In December 1973 the FAA issued an Advance Notice of Proposed Rulemaking seeking comment related to noise standards for shorthaul aircraft. This ANPRM will deal with aircraft capable of taking off and landing vertically or having short takeoff and landing capabilities. The shorthaul air transport concept has been studied for many years, and since this aircraft type implies city center as well as suburban operation, noise standards must be established at an early date to insure environmental acceptability of shorthaul facilities by the communities served.

The development of future noise level requirements for all commercial aircraft is in advanced stages at the FAA staff level. Our four plus years of experience in the implementation of FAR 36 has highlighted many areas for regulatory modification which can provide further noise relief. FAA's desire to revise present noise level standards downward was made clear to the aircraft industry in August 1972 in a letter to representative industry officials. Based on our regulatory experience and the extensive governmental noise reduction research and development effort, it is

believed that we can issue a notice presenting the new, more stringent regulatory requirements for comment by the end of 1974.

The FAA views the control of aircraft noise through the use of operational procedures to be a promising and practical means toward obtaining early noise relief. We have for many years been experimenting with different takeoff and approach procedures, passive and dynamic preferential runway procedures, noise abatement routing, and terminal area handling of aircraft to achieve noise control.

Noise abatement takeoff operating procedures designed to provide maximum separation between aircraft and the communities overflown were developed jointly by FAA and ATA. On August 1, 1972, the so-called "Get-Em-High'-Earlier" procedure was implemented nationwide. This procedure, which defines climb speed and altitudes for configurational and power changes, was slightly modified in late 1973 and published as a recommended noise abatement takeoff and departure procedure for civil turbojet aircraft in FAA Advisory Circular 91-39, dated January 18, 1974.

We are currently developing additional procedures along these same lines.

Noise abatement approach operating procedures have been developed jointly by FAA and NASA which includes a two-segment glide slope and provides noise reduction by use of lower power settings. The FAA has recently issued an Advance Notice of Proposed Rule Making seeking advice and comments on this two-segment approach procedure. In connection with this proposed rulemaking the FAA has identified approximately sixty candidate airports for installation of on-ground guidance equipment, which will enable aircraft to use the two-segment approach. This on-ground distance measuring equipment we hope to fund through the Aviation Trust Fund as part of our Facilities and Equipment Program.

Another aspect of maximizing aircraft to ground seperation distances to provide community noise relief is that of allowable minimum altitudes. The FAA had historically viewed this issue as one of safety; however, utilization of higher minimum altitudes as a means of achieving noise relief as well as safety has now been recognized. After extensive study

the FAA issued in early 1972 agency Order 7110.22 and Advisory Circular 90-59 dealing with arrival and departure handling of high performance aircraft. The objective of these directives was to keep aircraft as high as possible at all times in the terminal control area. This program has been referred to as the "Keep-'Em High" program and has been effective on a nationwide basis in providing significant noise relief. A later but related Advisory Circular, 91-36, was published in August 1972 to deal directly with VFR flight near noise sensitive areas. The purpose of this advisory was to encourage pilots making VFR flights near recreational and park areas, churches, hospitals, schools, and similar areas to fly at altitudes higher than the minimum permitted by regulation in order to reduce aircraft noise impact on the ground.

The FAA's regulatory plans and programs could not be accomplished without a substantial technical data base. To date the government has spent in excess of $200 million on research and development in the aircraft noise abatement area. For example since the issuance of FAR 36 the FAA/DOT has spent approximately $34 million and NASA $150 million.

The FAA's program and plans encompass the following areas of research and development:

1. Source noise prediction and reduction
2. Core engine noise control
3. Configurational effects on noise
4. General aviation aircraft noise
5. Retrofit feasibility for commercial and executive jet aircraft
6. V/STOL jet and rotary propulsor noise control.
7. Operational noise control
8. Noise measurement systems
9. Noise exposure evaluation and community response
10. Noise certification criteria
11. Sonic boom reduction and control

I would like to amplify one program because of its relevance to the Civil Aircraft Fleet Noise Requirements rulemaking which currently is receiving a great deal of attention. That program, entitled the Retrofit Feasibility Program, has been most gratifying and very successful.

The program was started in 1971 as a logical and necessary extension of a NASA program which clearly indicated the potential of using sound absorbing materials for quieting aircraft. Not only has this program contributed to the design and FAR 36 certification of four aircraft (which comprise approximately 75 percent of our present commercial fleet), but it has in addition advanced the state of the art with respect to design, development and fabrication of quiet nacelles. The approximately $16 million spent on this research and development program truly has the potential of providing the public considerable noise relief.

Mr. Chairman, this concludes my list of accomplishments we in the FAA look to with pride in the area of noise control. I would call your attention to the fact that, in publishing the list of ten items it is considering for submittal to FAA, EPA stated, and I quote, "among the first nine regulations being considered, as listed above, it is to be noted that rulemaking processes have already been initiated by the FAA ...." It is true that FAA has already taken action in nine of the ten areas where noise relief may be achieved. We do not consider our efforts

to date to represent a final answer to noise problems, but we strongly believe that our efforts have been considerable and have resulted in substantial progress in affording noise relief. These efforts are continuing as we learn more and understand more about the noise problem.

This concludes my prepared statement, Mr. Chairman. I am available to answer any questions you may have.